



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,140	02/20/2004	Robert W. Venderbosch	133113-2	7087

51401 7590 09/15/2005

GEAM - CYCOLOY
IP LEGAL
ONE PLASTICS AVENUE
PITTSFIELD, MA 01201-3697

EXAMINER

BOYKIN, TERRESSA M

ART UNIT PAPER NUMBER

1711

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,140

Applicant(s)

VENDERBOSCH ET AL.

Examiner

Terressa M. Boykin

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1- 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1711

The previously objected claims are now rejected after further consideration of applicants' arguments dated 2-16-05 and 3-10-05 in order to further clarify and properly set forth applicants' intended invention.

Claim Rejections - 35 USC § 112

Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the broadly defined process as claimed.

Note that the CCPA has criticized the use of the characterization "too broad" or "undue breadth"....however, an application whose claim(s) are of a breadth which are not adequately supported by its specification is in violation of 35 USC 112, first paragraph. In re Borkowski et al., (CCPA 1970) 424 F2d 904; In re Wakefield, (CCPA 1970 422 F2d 897; In re Hammack, (CCPA 197

The thermoplastic composition as written in the claim appears to be broader and open to interpretation broader than the enabling disclosure. Claims must be specified in accordance with the disclosure at pages 3-6. While stated as a preference, in view of the structures as noted on pages 5 and 6, there is no other disclosure of what other particular structures the matrix encompasses and how that structure differs from other structures wherein polycarbonate is in mixture or blended/blocked with polysiloxane.

Art Unit: 1711

35 USC 112, Second Paragraph

Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As noted above, While stated as a preference, in view of the structures as noted on pages 5 and 6, it is unclear as to what other particular structures the matrix encompasses and how that structure differs from other structures wherein polycarbonate is in mixture or blended/blocked with polysiloxane.

Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1- 26 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6676852 see abstract, col. 2 line 5 through col.5 line 62, examples and claims 1,3,4,5,10.

Art Unit: 1711

US 6676852 discloses thermoplastic compositions comprising one or more thermoplastic resins and a phosphorescent compound with an aluminate matrix. The compositions of the invention are particularly suitable for injection molding processes.

The reference discloses thermoplastic compositions comprising a thermoplastic resin or a blend of thermoplastic resins, a graft copolymer comprising a rubbery graft base upon which one or more monomers have been grafted and a phosphorescent pigment with an aluminate matrix expressed by M-Al, in which M is at least one metal element selected from calcium, strontium and barium and Al represents an aluminate group such as Al_2O_4 .

The thermoplastic resin is preferably a polycarbonate resin or a blend of a polycarbonate resin and or more thermoplastic resins. The concentrates of the reference comprise a thermoplastic resins and/or a graft copolymer comprising a rubbery graft base upon which one or more monomers have been grafted and a phosphorescent pigment (phosphor) with an aluminate matrix expressed by M-Al, in which M is at least one metal element selected from calcium, strontium and barium and Al represents an aluminate group such as Al_2O_4 , in a quantity of at least 5% by weight, calculated with respect to the total quantity of the mentioned components.

The compositions of the reference comprise the following essential components: (a) 50-99% by weight of a thermoplastic resin or a blend of thermoplastic resins; (b) 1-50% by weight of a graft copolymer comprising a rubbery graft base upon which one or more monomers have been grafted, the quantities of (a) and (b) being calculated with respect to the sum of component (a) and (b) taken together; and (c) a phosphorescent pigment (phosphor) with an aluminate matrix expressed by M-Al, in which M is at least one metal element selected from calcium, strontium and barium and Al represents an aluminate group.

Suitable thermoplastic resins are for example polycarbonates, siloxane-polycarbonate block copolymers, polyesters, polyolefines, styrene polymers and styrene copolymers, PVC, polyamides, polyphenylene ethers, polyacetals, polyacrylates such as polymethylmethacrylates and blends thereof. Preferred are polycarbonates and blends comprising a polycarbonate. Blends with polycarbonate should comprise at least 60% by weight, preferably at least 70% by weight of polycarbonate based on the total amount of thermoplastic resins (a). In case of compositions comprising as component (a) or as a part of component (a) a polycarbonate, the content of the graft copolymer is preferably between 1 and 15, more preferably between 1 and 10% by weight with respect to the sum of (a) and (b). In case of blends the most preferred blends are those comprising polycarbonate and one or more of the following: a polyester, a siloxane-polycarbonate block copolymer or a SAN copolymer.

Art Unit: 1711

Some of the hydroxyaryl-terminated polydiorganosiloxanes that may be used include phenol-siloxanes of the formula (VII).

The siloxane-polycarbonate block copolymers have a weight-average molecular weight (M_w , measured, for example, by ultra-centrifugation or light scattering) of greater than or equal to about 10,000, preferably greater than or equal to about 20,000. Also preferred is a weight average molecular weight of less than or equal to about 200,000, preferably less than or equal to about 100,000. It is generally desirable to have the polyorganosiloxane units contribute about 0.5 to about 80 wt % of the total weight of the siloxane-polycarbonate copolymer. The chain length of the siloxane blocks corresponds with about 10 to about 100 chemically bound organosiloxane units.

The thermoplastic composition comprising as component (a) a blend of a polycarbonate resin and one or more of the following thermoplastic resins: a thermoplastic polyester resin and a siloxane polycarbonate block copolymer can further be characterized by their favorable notched Izod impact strength according to ASTM D256. The notched Izod impact strength is at least 10 ft-lb/inch (at least 530 at J/m) at zero degrees Celsius, or even at -10 degrees, or more preferably at -30 degrees or at -40 degrees and most preferably at -50 degrees Celsius.

Examples disclosed in the reference include:

Two polycarbonate resin formulations were prepared with the following composition. Polycarbonate resin formulation 2E: 80 parts of poly(bisphenol-A carbonate) with a molecular weight (M_w) of 29,900 20 parts of poly(bisphenol-A carbonate) with a molecular weight (M_w) of 21,900 9.10 parts of polycarbonate-siloxane copolymer (20% siloxane content mostly D50) 0.11 parts of 2,4-di-tert-butylphenol phosphite 0.22 parts of antioxidant Seenox 412S 0.33 parts of antioxidant 1076 4.60 parts of MBS impact modifier (methacrylate-butadiene-styrene copolymer)

Polycarbonate resin formulation 2F: 80 parts of poly(bisphenol-A carbonate) with a molecular weight (M_w) of 29,900 20 parts of poly(bisphenol-A carbonate) with a molecular weight (M_w) of 21,900 9.10 parts of polycarbonate-siloxane copolymer (20% siloxane content mostly with a chain length of about 50 units) 0.11 parts of 2,4-di-tert-butylphenol phosphite 0.22 parts of antioxidant Seenox 412S 0.33 parts of antioxidant 1076 4.60 parts of MBS impact modifier (methacrylate-butadiene-styrene copolymer) 3.0 parts of Luminova G300FFS (UMC-Nemoto; median particle size below 2 microns) previously dried at 260.degree. C. for 4 hours.

Consequently, in view of the above rejections, there appears to be no significant difference between the reference and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

Art Unit: 1711

Correspondence

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

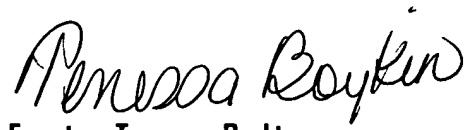
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is (**571-272-1700**).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb

Art Unit: 1711

A handwritten signature in black ink, reading "Terressa Boykin". The signature is written in a cursive, flowing style with a large initial 'T'.

Examiner Terressa Boykin

Primary Examiner

Art Unit 1711